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ABSTRACT

Concerned with how effectively nontraditional students (defined as older than average students with goals, motivations, and learning needs that differ from traditional-age students) function in an off-campus setting, a series of studies examined traditional and nontraditional students' performance in on-campus and off-campus reading programs. Two recent studies investigated the quality of results derived from an on-campus reading laboratory for traditional students. Together they showed that traditional freshmen enrolled in the campus reading program made significant gains in reading over traditional freshmen not enrolled in the campus reading program. Using these results as a reasonable measure of the campus reading program's quality, a study compared the performance of traditional students in the campus reading program with the performance of nontraditional students in an off-campus reading program. The two programs were similar in course design, syllabi, and method of instruction. Results showed that although nontraditional students outgained traditional students, the difference in gains between the two groups was not statistically significant. The findings suggest that traditional college reading programs in nontraditional settings, operated for nontraditional students, can yield results comparable to those for the on-campus, traditional-age population. (HOD)

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Reading Gains of Traditional and Non-Traditional Students

A Paper Presented at the

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Wichita, Kansas, Friday, October 21, 1983

by

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Reading Gains of Traditional and Non-Traditional Students

In recent years, a considerable amount of attention has been focused on the so-called nontraditional college student. This attention stems from two sources. First, because older-than-average students are returning to college to finish degrees previously started and others are delaying college entrance for several years after high school graduation, it is felt that these students represent a college population with unique learning needs, and, that it is important to better understand these needs. Second, because of an erosion in college enrollments due to shrinking numbers of high school graduates the non-traditional student's presence is needed on college campuses to offset the enrollment decline of traditional-aged, or 18-year old students.

Given these two interests, it is important to understand how the non-traditional student functions in learning situations in off-campus and on-campus settings. This, of course, includes the college reading program. In the remainder of this presentation, I would like to first discuss briefly some of the literature on the non-traditional student in order that we more fully understand the population under discussion. Second, I should like to present a study in which the reading gains of traditional and non-traditional students are compared. Third, in light of these findings, I should like to discuss the components of a reading program which I feel is effective, yet inexpensive, for instructing the non-traditional college student in reading.

Literature on Non-Traditional Students

Non-traditional college students are not traditional students. They

are older than traditional students and are thought to:

1. have goals which differ from those of traditional students.
2. have motivation for learning which differs from that of traditional students.
3. be in circumstances which frequently precludes receiving a traditional type of instruction on the college campus. They are thought to need instruction that is either non-traditional, or, that traditional instruction must be delivered in a non-traditional setting.

Sherer, et. al. (1978) noted adult students goals to be: 1) education for retraining 2) education to secure vocational or professional training. Billingham and Travaglini (1981) cite the following goals for adult students: 1) education for personal satisfaction 2) education to improve or change jobs 3) education to achieve promotion. Olski (1980) suggests that the reasons adults enter or return to college are numerous and diverse, but all share a common ground -- the decision is voluntary.

Given a diverse set of educational goals, what type of motivation does the non-traditional student bring to the learning task? Veeman (1980) noted that both civilian and military adult students are excited about learning and are highly motivated. However, Veeman (1980) also noted that both civilian and military students may be anxious about their abilities. Sherer, et. al. (1978) found that 31% wanted an assessment of personal competence, 28% wanted to know what their subject strengths were, and 20% were in need of personal counseling. Clarke (1980) and Schoenholz and Frenkel (1980) suggested that adult students may feel limited by prior school failure while Olski (1980) suggested that adult students

may be conditioned to believe that age will bring a lowered ability to learn and that women often suffer guilt because of conflict in role definition.

The key issue for college entry is how to build confidence and get adults over the fear of failure. Sherer, et. al. (1978) recognized this as did Clarke (1980), while Veeman (1980) emphasized that students must not be alienated upon entry to the program. This issue becomes critical when it's suspected that there are learner deficiencies in the population. Knudstrup (1980) reported that traditional admissions tests should be avoided since they are poor predictors of success for the mature student. He recommended the use of a skills measurement system in which students would undertake a self-assessment and remediation would be optional. Similarly, Kennedy, Gallagher, and Kochner (1983) describe a series of five topics presented in brief sessions and designed to facilitate adult student entry into college study: 1) career development 2) time management 3) assertiveness training 4) leadership skills 5) stress management.

Together, the concerns and recommendations of the writers above reflect an obvious respect for the dignity of the adult student. Nevertheless, this apparent concern gives us very little hard information about adult students' attitudes and feelings as they begin college study, particularly if they have learning deficiencies. Clarke (1980) sought to determine how older entering students viewed participation in remedial programs compared to how adolescent freshmen viewed such participation. He found that older students were more resolved to avoid delay in academic tasks; were more approving of the role and purpose of teachers; and, were more approving of purposes and processes of higher education,

than were younger students. In brief, older students had a greater degree of congruence with self and institution than did younger students. Clarke further concluded that older students viewed the need for remedial help more positively than did younger students. In his follow-up, Clarke sought to determine the relative degree of participation between the two groups in remedial programs. He found that while older students viewed the remediation process in a more positive fashion, they did not volunteer for remediation in a proportion greater than that of traditional, or younger students.

Finally, it is important to consider the unique circumstances of adult students which point to needs for non-traditional instruction, or, for traditional instruction in non-traditional settings. Billingham and Travaglini (1981) found the time conflict to be the prime obstacle to participation in traditional campus programs as did Veeman (1980), Olski (1980), and Sherer, et. al. (1978). Sherer, et. al. (1978) also pinpointed class location and cost of enrollment as important variables. Even though there are practical reasons for using non-traditional methods with non-traditional students, Olski (1980) questioned the effectiveness of these methods. This is because non-traditional methods are lacking in daily contact with instructors and peers, and, adult students need to develop emotional and psychological support systems. In fact, Olski suggests that non-traditional students might prefer traditional methods, if it weren't for the time variable. In this vein, Desmonde and Yordi (1980) suggest that adult students should begin study in a structured situation like the traditional classroom and gradually be exposed to a learning environment which requires more independence and self-direction.

In summary, the non-traditional student has specific motives for attending college, is generally highly-motivated, but may have some doubts and misgivings about college study. Time, location, and cost variables enter into decisions about education. Certainly, the adult student with learning problems entering college work must be afforded dignity and respect. At the same time it is apparent that many adult students seek educational evaluations upon entering college. The results of the Clarke study tend to support the practice of being somewhat directive with entering students with learning problems, rather than making their participation in helping programs voluntary. Instructional quality (non-traditional versus traditional methods) is an issue which is not resolved, and, probably will not be resolved until considerable research is conducted.

Reading Gains of Traditional and Non-Traditional Students.

The context of this study was established by four foundation issues. First, the explosion in off-campus degree programs has raised serious questions about the quality of many of these programs (Millard, 1979). Second, with the introduction of the all-volunteer army, the military has set as its goal the provision of the same educational programs for military as is provided for civilians. In working toward this goal the military has come to be one of the largest contractors for off-campus college credit and degree programs. Hence, off-campus credit programs at military installations have come under the same scrutiny as the larger off-campus credit picture (Bailey 1979, Allen and Simpson 1983). Third, off-campus credit programs frequently serve non-traditional students and students enrolled in military off-campus credit programs frequently fit the mold of the non-traditional student.

The fourth foundation issue, the means for determining quality in off-campus programs, provided the basis for the design of the present study. Mickey (1978) noted that continuing education units lack research components and may be well advised to document quality of student competence by comparing off-campus to on-campus student performance through research. Wolff (1983) echoed this recommendation as did Allen and Simpson (1983) regarding programs on military installations. Votruba (1979) recommended that when equivalence in performance is shown, researchers should also show how the on-campus and off-campus counterpart programs differ. Powers (1982) cautioned against assuming that the on-campus standard of comparison actually represents quality. Implicit here is the fact that researchers should first document that the on campus standard itself, is a quality offering.

On-Campus Quality for Traditional Students. Two studies shed light on the quality of results derived from the on-campus reading laboratory. Heerman (in press) reported that traditional freshmen enrolled in the campus reading laboratory made significantly higher reading gains than did traditional freshmen in a matched control group. Thirty-two reading laboratory students were matched to 32 students not enrolled in the lab. Matching criteria were:

ACT	$\bar{X}$ = 15.72	S.D. = 3.69	R = 10 - 24
High school GPA	$\bar{X}$ = 2.92	S.D. = .46	R = 2.0 - 4.0
Sex	18 females, 14 males in each group		

Pre- and post-test measures were taken with Forms E and F of The Nelson-Denny Reading Test (Brown, Bennett and Hanna, 1981). A repeated measures ANOVA was done on the two tests for the two groups, the results of which were significant ($p < .01$) in favor of the reading lab group. In

a second study, Heerman and Trennepohl (in press), found no significant differences between females and males enrolled in the campus reading laboratory on measures of critical thinking, general reading achievement, and reading attitude. Together, these two studies show that traditional freshmen enrolled in the campus reading program made significant gains in reading over traditional freshmen not enrolled in the campus reading program. Second, females and males benefited equally in reading achievement gains.

Problem Statement. Given a reasonable measure of quality in the campus reading program, the next step is to compare student performance in the campus program with student performance in the off-campus program. Because the off-campus program is attended by non-traditional students, the comparison comes down to traditional versus non-traditional students in reading achievement gains. The specific question here is whether the reading performance of a Fort Riley, Kansas non-traditional student group was on par with that of the Kansas State University traditional campus student group after the two groups had completed their respective reading laboratory courses.

Comparability in Traditional and Non-Traditional Student Performance. Fifty-eight subjects (40 males, 18 females) comprised the population of this comparative study. Twenty-nine subjects were traditional-aged college freshmen enrolled in the Kansas State University campus reading laboratory and the Fort Riley group consisted of 29 non-traditional students (Mean age = 30, Range = 19 - 62) enrolled in the K-State Reading Lab located on-post. The members of the campus group received 45 hours of instruction during a 16-week period. The members of the Fort Riley group received 45 hours of instruction during a 12-week period at the

off-campus site.

All subjects were administered Form E of The Nelson-Denny. Total raw scores from the pre-test were used to match the 29 pairs of subjects in this comparison. The pre-test mean for each group was 74.03 (S. D. = 28.30). At the end of the respective semesters, Form F of The Nelson-Denny was administered as a post-test. The two tests and the two groups were compared by a repeated measures analysis of variance (ANOVA). Figure 1 depicts graphically the mean pre- and post-test scores for the two groups under comparison and shows that the non-traditional, off-campus group outscored the traditional, on-campus group. Tables 1 and 2 report the results of the ANOVA as well as mean and standard deviation scores. The ANOVA revealed that both groups scored substantially higher on the post-test than on the pre-tests ($df=1$, $F=90.23$, $p<.001$). Though non-traditional students out-gained traditional students, the difference in gains between the two groups was not statistically significant; therefore, it is concluded that the two programs yielded only comparable results.

Comparability of Programs.

Seemingly, when instructional time is held constant, reading gains are comparable for traditional and non-traditional students. These findings are in line with those from a study conducted by Curry and Roberts (1971) in which they found regular weekly practice time to be the prime variable in college student reading success. A point of contention in this study is the program duration variable. Is it possible that the off-campus program for non-traditional students yielded comparable results because instruction was concentrated over a shorter duration of time (12 versus 16 weeks)? An affirmative response to this question is supported by the findings of a study conducted by Taschow

Figure 1

Pre- and Post-test Mean Scores for Traditional and Non-traditional Students on The Nelson-Denny Reading Test (1981)

n = 58

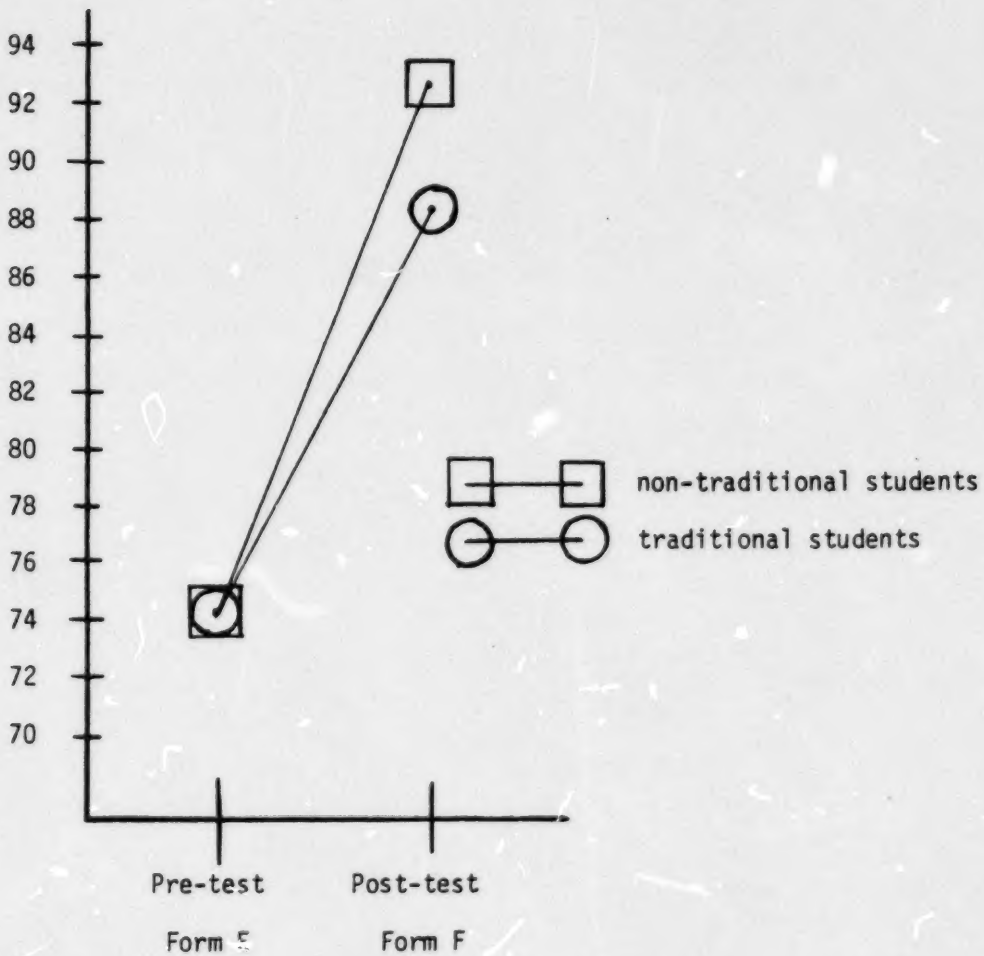

Table 1

Results of ANOVA

Source	df	MS	F	p
Between-Subjects				
Group	1	124.14	.07	.79
Error	56	1689.48		
Within-Subjects				
Pre-Post-Test	1	7780.17	90.23	.001
Group X Pre-Post-Test	1	124.14	1.44	.24
Error	56	86.23		

Table 2

Means and Standard Deviations

Group	$\bar{X}$	SD	$\bar{X}$	SD
Non-traditionals	74.03	28.30	92.48	31.23
n = 29				
Traditionals	74.03	28.30	88.34	31.22
n = 29				

(1968) in which he found no significant differences in reading gains between a 10-week and a 20-week group. Also, the Fort Riley degree program recently switched from the 12-week term to an 8-week term and reading gains for students in the program continued to parallel those of students in the longer 12-week term. These two findings strongly suggest that shorter program duration could have accounted for equivalence in gains between traditional and non-traditional students. This is a very tenuous conclusion, however, for successful course completion rates of 90% for the 12-week term dropped into the range of 50% - 75% for the 8-week term, which suggests that the equivalence in gains between the 8- and 12- week terms was nothing more than a by-product of increased student attrition.

Beyond these findings is the question of program equivalence: Were the two programs in this study comparable? On the following page is found a bibliography of materials appropriate for college students enrolled in a reading laboratory. This collection of materials will effectively meet the needs of students reading in the range of fourth grade (4.0) through college levels. Further, the collection includes a sufficient number of titles to accommodate student attitudes and interests, factors considered important by Schoenholz and Frenkel (1980) and by Nist (1983). The materials listed are common to both labs and, the labs are therefore, identically equipped, except that the on-campus program has a machine program designed to improve student comprehension and rate. The machine program has a current market value of about $11,000.

The course syllabi for the two laboratories are identical and student grades are awarded on the bases of 1) attendance 2) overall productivity in the reading lab. 3) number of pages completed in library or paperback books. Class time per week is divided into thirds, spent re-

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Adult Reading Laboratory

Materials for Students Reading at Basic-Advanced Levels

Communacad, The Communications Academy, Box 541, Wilton, CT 06897

Wordcraft 1:	2 sets of tapes @ $30.00 per set	$ 60.00
	6 books @ $2.50 per copy	15.00
Wordcraft 2:	2 sets of tapes @ $20.00 per set	40.00
	6 books @ $2.00 per copy	12.00
Wordcraft 3:	2 sets of tapes @ $20.00 per set	40.00
	6 books @ $2.00 per copy	12.00
Rapid Vocublary Development:		
	4 sets of tapes @ $50.00 per set	200.00
	10 books @ $2.25 per copy	22.50
Bergan Evans Vocabulary:		
	2 sets of tapes @ $35.00 per set	70.00
	6 books @ $1.50 per copy	9.00
Dictionaries, 20 @ $5.00 per copy		100.00

Harcourt Brace Jovanovich, 757 Third Avenue, NY, NY 10017

Jacobus. Improving College Reading (4th ed.) 8 copies @ $13.00/copy	104.00
Jacobus. Developing College Reading (2nd ed.) 8 copies @ $13.00/copy.	104.00

Jamestown Publishers, P. O. Box 6743, Providence, RI 02940

Timed Readings, 10 levels X 3 copies per level @ $4.00 per books	120.00
Reading Drills, (middle level) 8 copies @ $6.00 per copy	48.00
Reading Drills, (advanced level) 8 copies @ $6.00 per copy	48.00
Six-way Paragraphs, 6 copies @ $6.00 per copy.	36.00
Skimming and Scanning (Middle level), 6 copies @ $6.00 per copy	36.00
Skimming and Scanning (Advanced level),6 copies @ $6.00 per copy	36.00
Comprehension Skills Kit (Middle level).	250.00
Comprehension Skills Kit (Advanced level).	250.00

Science Research Associates, 7200 S. Leamington, Chicago, IL 60638

Reading For Understanding, Kit 2	110.00
Reading For Understanding, Kit 3	110.00
	$ 1,832.50

Equipment needs include 8 - 10 cassette tape players with headphones.

This materials collection is adequate for 20 reading lab students per hour.

spectively on 1) instructional reading strategies 2) reading subskill development 3) recreational reading.

Students are pre-tested and each student receives an individual conference with the instructor in which reading levels are explained and individual reading goals agreed upon. Instruction is individualized and determined by student reading levels. Reading strategies are explained and demonstrated. Student practice follows and results give rise to additional explanation and demonstration by the instructor. This ongoing procedure is common to both labs. At the end of the term, students are post-tested and they participate in individual exit conferences. Class size is targeted at a maximum of 20 students in both locations. Thus far, instruction at the Fort Riley site has been conducted by one instructor, the Director of the University Reading Program at Kansas State University.

Summary.

In this presentation, I've examined literature which bears on the educational goals, motivation, and concerns of adult or non-traditional students. College entry programs for non-traditional students were examined. Issues regarding appropriate instructional models for non-traditional students (traditional versus non-traditional instruction) were briefly explored. Second, a constellation of factors were presented which formed the basis for a comparative study. The study first demonstrated that a campus reading program provided a reasonable degree of quality reading instruction for traditional students. Non-traditional students were shown to perform equally well in a similar lab in an off-campus setting. The two programs were shown to be comparable in course design, syllabi,

and, in instruction. Materials in the two programs were shown to be basically the same, except that the program for non-traditional students was equipped at a substantially lower cost.

In summary then, it must be recognized that a traditional college reading program in a non-traditional setting, operated for non-traditional students, yielded results comparable to those for the campus, traditional-aged population.

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